

SWBAT: compare electric and magnetic fields

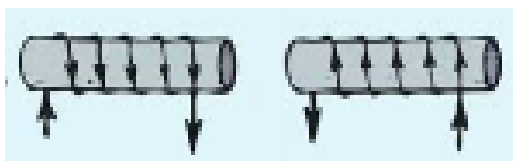
Jan 4-7:20 AM

Welcome!!!

H. Leslie Grebe

* Pick up:

- slip of paper (for later)
- yellow and blue card



Opening Questions:

Will these electromagnets attract or repel? Why do you say that?

Centering

Sep 7-7:04 AM



Mystery Resistor - extra credit

- You may work alone or with at most one other person of your choosing.
- Get a "Mystery Resistor" labeled with a letter from Leslie
- Use the same equipment that our teams used in class. Take measurements that will allow you to calculate the resistance (in Ohms) of your resistor.
- You may work when there is spare time in class or arrange other time with Leslie.

Due by 3:00 Friday 3/18

Jan 19-7:12 AM

MAGNETS ARE DIPOLES: N & S (NOT + & -)
MAGNETS MAKE MAGNETIC FIELDS

← COMPASSES
DETECT

So what's the difference between a
permanent magnet &
an electromagnet?

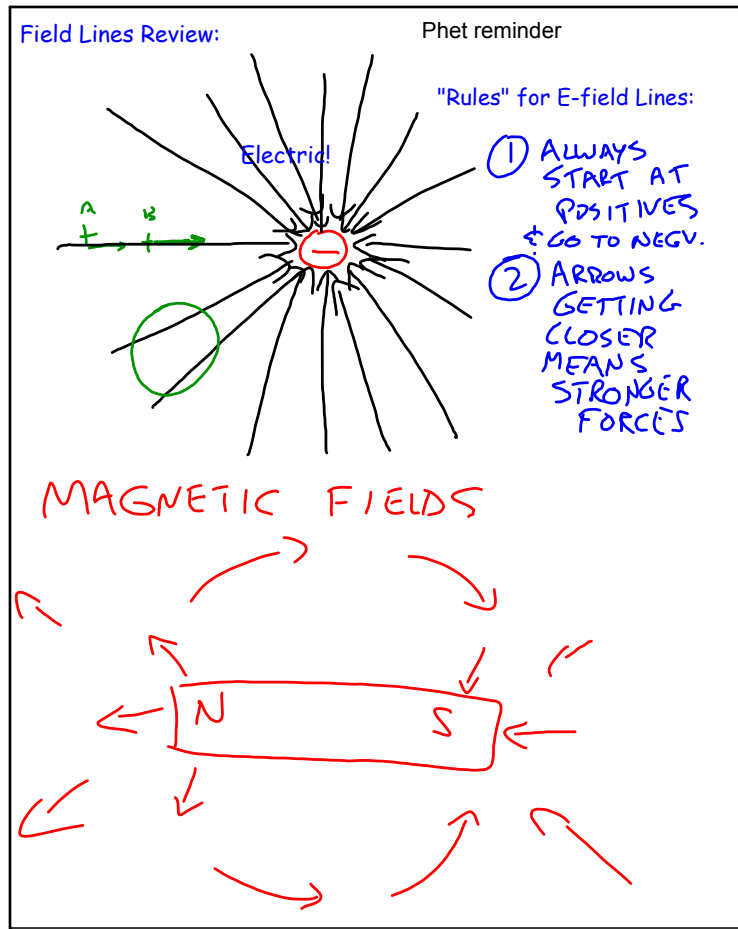
electrons spinning around magnets align to create a
magnetic field

loops of electric current create a magnetic field

=> They work the same way!!!

Currents generate magnetic fields!

Mar 28-7:39 AM



Electric vs. Magnetic Fields:

Battle Royale!!!!

Yellow card =
Electric field

Blue card =
Magnetic field

Both =
BOTH

1) Forces Attract and Repel



2) Positive and Negative



3) Forces at a distance (without touching)



4) North and South

5) Current in a wire

NO X NO



6) Electric charge



Jan 7-7:38 AM

Outrageous Acts of Science

A show about viral videos and the science that makes them possible...

"Magnet express" Power Junkies #17

1. Just watch
2. Read the questions
3. Watch again
4. Discuss
5. Watch a last time to catch anything you might have missed



Oct 4-7:27 AM

FLIP

- BAGS OF IRON FILINGS OVER MAGNETS
- 3 OBSERVATIONS ABOUT MAGNETIC FIELDS
 - MOST ATTRACTED TO N & S ENDS / EDGES
 - 3-DIMENSIONAL FUZZY, SPIKY,
 - CURVES FROM 1 POLE TO ANOTHER
 - CURVES

Mar 21-10:02 AM

Daily 3 Questions

- * Every day except test/project days
- * 3 Questions on the topics of the day
- * Main source of daily points
- * I am happy to give credit when I have no concerns about someone giving or getting help with the answers.

You can't get your points if you don't have your **NAME!!!**

Name	Period
1.	
2.	
3.	

Sep 9-7:32 AM

1. Positive (+) and negative (-) are associated with
 - a. magnetic fields
 - ☒ b. electric fields
 - c. both
2. The floating train worked because of
 - ☒ a. magnetic fields
 - b. electric fields
 - c. both
3. Forces acting at a distance is associated with
 - a. magnetic fields
 - b. electric fields
 - ☒ c. both

Feb 18-6:59 AM